

**Tioga Energy Partners, LLC Well Drilling Permit Applications
Attachment 1 - Snyder E 1 (API 31-107-30000-00-00)**

***Comment:** If any noted combustion source or emission source is present for both well projects (i.e., Snyder E 1 and Snyder E 1-A), TEP must include incremental and total durations/emissions when responding to related items noted in Attachment 1 and Attachment 2. Because of the sequential nature of the proposed well projects, the Department must be provided adequate information to evaluate the projects as a whole with respect to potential impacts to air resources.*

Response: TEP has ensured that incremental and total durations/emissions are considered where appropriate. Where applicable, this is elaborated upon below.

***Comment 1:** Identify any fuel-fired stationary combustion equipment that will be brought on site for drilling and plugging operations. This includes compressors, engines/generators, heaters, flares, boilers or any other non-mobile combustion source. For each source, please provide the following information:*

a. Size of the unit (e.g., maximum rated break horsepower (BHP) for engines, heat input capacity for flares/heaters or other combustion sources);

b. Fuel burned in the source;

c. Duration that the source will be physically located on site, and the expected total duration of operation for each source in terms of operating hours; and

d. Estimated maximum hourly emissions for each source, and the anticipated total actual emissions for each source.

Response 1: TEP will not be using any fuel-fired stationary combustion equipment for drilling or plugging operations. Drilling and plugging operations will be powered by exempt, non-road engines (see, 6 NYCRR §200.1(aw)). Notwithstanding, the attached **EXHIBIT 1**, Air Emission Calculation Summary and its attached tables provide significant detail on the potential and expected emissions generated by non-road engines, and other equipment utilized as part of the Project. Within Exhibit 1 are lists of the equipment anticipated to be used during all phases of operations for the Snyder E1 well. These tables also provide a description of the unit, fuel burned in the unit, duration of operations and estimated emissions for each piece of equipment.

Also note that this Project will use a drilling rig with specifications similar to the examples provided in Appendix 7 of the Final Supplemental Generic Environmental Impact Statement on the Oil, Gas and Solution Mining Regulatory Program dated May 2015 (“2015 FSGEIS”). Drilling (continuous) of the Snyder E1 well is expected to take 17 days.

Comment 2. Identify whether any gas venting can or will occur on site during drilling or plugging operations. If gas venting can occur, identify the anticipated composition of the vented gas, anticipated gas flow rate, and anticipated or possible duration of any gas venting.

Response 2: This Project does not anticipate the need for any gas venting. Shale formations such as the Utica targeted in this application are typically tight formations that do not release any natural gas absent stimulation. Notwithstanding, while the surface hole and upper portion of the well may be air drilled, a gas block cementing additive will be used for surface casing; and, the use of fluid in deep drilling, as will occur here, is completed with a hydrostatic head which generally prevents gas flow. Nonetheless, if any formation gas is encountered in any portion of the well during drilling, it will be captured by the Project's closed loop drilling system and sent to the drill rig flare.

Comment 3. Identify whether any storage tanks will be located on site during drilling or plugging operations. For each storage tank, identify the material being stored, the size of the storage tank, and an analysis of whether the storage tank is exempt from permitting under NYSDEC air regulations (ref. 6 NYCRR Part 201-3). For any tank not exempt from air permitting, an application for an air permit or registration must be submitted.

Response 3: There will be several storage tanks onsite during drilling and plugging operations. The storage tanks are described on attached Exhibit 1, Table 4. Table 4 identifies the material being stored, the volume of each tank, and the number of each tank type. Other than two diesel fuel storage tanks, none of the tanks will generate emissions. The two diesel fuel storage tanks, one having a capacity of 15,000 gallons and one having a capacity of 350 gallons, are exempt from air permitting pursuant to 6 NYCRR 201-3.2(c)(21).

Status of Additional Coverages/Agreements/Approvals

Comment 1. Coverage under the General Permit for Construction Stormwater Management from the Department's Division of Water.

Response 1: A Notice of Intent for coverage under the Stormwater General Permit for Construction Activity was submitted on July 16, 2015. The necessary Owner Certification and SWPPP Certification forms were also submitted. A SWPPP has also been prepared in accordance with the General Permit requirements. The Department acknowledged receipt by letter dated May 31, 2016. A copy of this letter is attached as **EXHIBIT 2**.

Comment 2. Susquehanna River Basin Commission (SRBC) approval(s).

Response 2: A Notice of Intent for Consumptive Water Use Related to Natural Gas Development was submitted on September 9, 2015. This NOI requested 2,500 gpd of water use. Publication in the *Morning Times* was accomplished on September 18, 2015. Notification was sent to the Department, the Town of Barton Town Clerk, and the Tioga County Economic Development and Planning Department by letters dated September 16, 2015.

TEP is in the process of identifying a water source to continue the processing of its SRBC application. However, on December 8, 2016 TEP was informed by SRBC during a telephone conference that its application could not be approved until the Department approves TEP's well drilling applications.

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